AMENDMENTS TO THE SPECIFICATION

On page 1, line 5, please amend the subtitle as follows:

--~~Technical~~ Background of the Invention--

On page 1, line 6, please amend the subtitle as follows:

--~~Technical~~ Field ~~to which~~ of the Invention ~~Belongs~~--

On page 1, line 7, please amend the paragraph as follows:

-- The present invention relates to a video image display apparatus and, in particular, to a stereoscopic video image display apparatus which displays on a plurality of display elements stereoscopic video images by using a parallax effect between right and left-eye video images which are picked up by a plurality of image pick-up elements and a stereoscopic video image processing circuit.--

On page 1, line 14, please amend the subtitle as follows

--~~Prior~~ Description of the Related Art--

On page 1, line 15, please amend the paragraph as follows:

-- ~~Prior~~ Related art stereoscopic video image display apparatus (for example, binocular telescope) is ~~deisclosed~~ disclosed in ~~Japanease~~ Japanese Application Laid-Open No. hei 7-49456 in which picks up stereoscopic video images and displays them comprises two image pick-up elements (CCD cameras) and two video image display means (LCD panels). A right and left video

images which are picked up by right and left pick-up elements, respectively, are displayed on right and left-eye image display means, respectively.--

On page 2, line 6, please amend the paragraph as follows:

-- However, ~~due to~~ as a result of the difference between the electrical characteristics of right and left-eye image pick-up elements, variations in the circuit characteristics of the right and left-eye signal processing circuits, and differences in circuit characteristics such as temperature characteristics, color correction, and automatic gain compensation, etc., the right-eye video image may be different from the left-eye video image so that the level of the right-eye video image signal may be different from that of the left-eye video image signal. This may result in changes in brightness and tonality of the video image signal. Such a difference between the right and left-eye video images makes it impossible for a viewer to normally view stereoscopic images in a stereoscopic manner, deteriorating the binocular effect. If differences between the picture quality and brightness of the right and left-eye video images are caused, a flicker phenomenon is then generated in association with switching between the right and left-eye video images. This may provide an uncomfortable and ~~fatigue~~ a feeling of fatigue to a viewer.--

On page 2, line 24, please amend the paragraph as follows:

-- An amplifying circuit, adjusting circuit, horizontal/vertical synchronization circuit, output circuit, and the like are necessary for each of two image pick-up elements (CCD cameras), resulting in a large scale of circuitry, a number of circuit components and a high cost for manufacturing. In particular, in an electronic binocular telescope which causes both eyes to view different video images, the picked-up video image may be recorded or stored, so that observing video images and/or recorded video images are transmitted to the other binocular telescope via communicating means. ~~Since~~ Because it is necessary to separately process two right and left-eye video images, the data having an amount which is ~~a double of~~ twice that of the data of a monocular display should be processed. Accordingly, an increase in circuit scale provides a serious problem. If variations in

two image pick-up elements can be corrected by one circuit, the manufacturing yield can then be increased, resulting in a reduction in manufacturing cost.--

On page 3, line 13, please amend the paragraph as follows:

-- It is an object of the present invention to provide a stereoscopic video image display apparatus in which right and left-eye video images which are picked up by right and left-eye image pick-up elements, respectively, are processed by one and same signal processing circuit and are displayed on right and left-eye display means.--

On page 3, line 20, please amend the paragraph as follows:

-- ~~A first invention resides in~~ This application is directed to a stereoscopic video image display apparatus including an image pick-up device for picking up the image of an object to be observed, a display device for displaying the video image which is picked up by said pick-up device and a stereoscopic video signal processing circuitry for processing and converting the video signal output from said image pick-up device into a signal which can be displayed on said display device, ~~characterized~~ in ~~that said~~ which the image pick-up device comprises right and left-eye image pick-up elements which pick up right and left-eye video images, respectively; and ~~in that said~~ also a stereoscopic video signal processing circuitry which comprises a video signal correction circuit which alternately corrects the right and left-eye video signals and a first switch for alternately switching the right and left-eye video signals to said video signal correction circuit.--

On page 4, line 7, please amend the paragraph as follows:

-- ~~A second invention is characterized in the first invention in that said~~ The display device comprises a right and left-eye display elements for displaying the right and left-eye video images, respectively; and ~~in that said~~ also a stereoscopic video signal processing circuitry which

comprises a second switch for separating ~~said~~ the video signal output from ~~said~~ the video signal correction circuit into right and left-eye video signals for supplying them to ~~said~~ the right and left-eye display elements, respectively.--

On page 4, line 15, please amend the paragraph as follows:

-- ~~A third invention is characterized in the first and second inventions in that said~~ The first and second switches switch the right and left-eye video signals in accordance with dot synchronization timing, horizontal synchronization timing or vertical synchronization timing of the video signal.--

On page 4, line 20, please amend the paragraph as follows:

-- ~~A fourth invention is characterized in the second and third inventions in that said~~ The image pick-up element picks up the video image along alternate scanning lines; ~~in that said~~ and the video signal ~~being~~ is supplied to ~~said~~ the video signal correction circuit via ~~said~~ the first switch, in that ~~said~~ the stereoscopic video signal processing circuit comprises a video combining and conversion circuit which combines a left-eye video signal output from ~~said~~ the second switch with a left-eye video signal of previous frame along alternate scanning lines for outputting the combined video signal to ~~said~~ the display device and combines a right-eye video signal output from ~~said~~ the second switch with a right-eye video signal of previous frame along alternate scanning lines for outputting the combined video signal to ~~said~~ the display device; and in that said right and left-eye display elements update and display said combined right and left-eye video signals in accordance with a predetermined timing.--

On page 5, line 8, please amend the paragraph as follows:

-- ~~A fifth invention is characterized in the first to third inventions in that said~~ The video image correction circuit comprises an amplifier having a variable gair or an attenuator having a variable attenuation, so that the difference between the levels of the right and left-eye video signals is corrected by adjusting ~~said~~ the gain and attenuation depending upon the output level of ~~said~~ the video signal correction circuit.--

On page 5, line 15, please amend the paragraph as follows:

-- ~~A sixth invention is characterized in the first to fourth inventions in that said~~ The video signal correction circuit includes a level shift circuit which is capable of shifting the direct current level of an input signal, so that the difference between the levels of the right and left-eye video signals is corrected by adjusting the direct current level of ~~said~~ the input signal depending upon the direct current level of the output signal of ~~said~~ the video signal correction circuit.--

On page 5, line 23, please amend the paragraph as follows:

-- ~~A seventh invention is characterized in the fifth or sixth inventions in that said~~ The video signal correction circuit corrects the difference between the right and left-eye video signals by correcting the pedestal levels of both video signals and/or video signal level.--

On page 6, line 1, please amend the paragraph as follows:

-- ~~A eighth invention is characterized in the first to seventh inventions that said~~ The video signal correction circuit comprises a color correction circuit which is capable of adjusting the tonality of the video signal to correct the difference between the tonality of the right and left-eye video signals.--

On page 6, line 6, please amend the paragraph as follows:

-- ~~A ninth invention is characterized in the first to eighth inventions characterized in that said~~ The stereoscopic video signal processing circuit operates to cause said first switch to pass one of the right and left-eye video signals and operates to alternately switch said second switch.--

On page 6, line 11, please amend the paragraph as follows:

~~--A tenth invention reside in a~~ This application discloses a stereoscopic video signal processing circuitry for processing and converting right and left-eye video signals from right and left-eye image pick-up elements into a signal which can be displayed on a display device for displaying a stereoscopic video image, ~~characterized in that said~~ wherein the stereoscopic video signal processing circuitry comprises a video signal correction circuit which alternately corrects the right and left-eye video signals and a first switch for alternately switching the right and left-eye video signals to ~~said~~ the video signal correction circuit.--

On page 6, line 21, please amend the paragraph as follows:

-- ~~A eleventh invention is characterized in the tenth invention in that said~~ The stereoscopic video signal processing circuitry comprises a second switch for separating ~~said~~ the video signal output from ~~said~~ the video signal correction circuit into right and left-eye video signals for supplying them to ~~said~~ the right and left-eye display elements, respectively.--

On page 6, line 27, please amend the paragraph as follows:

-- ~~A twelfth invention is characterized in the tenth and eleventh invention that said~~ The first and second switches switch the right and left-eye video signals in accordance with dot

synchronization timing, horizontal synchronization timing or vertical synchronization timing of the video signal.--

On page 7, line 5, please amend the paragraph as follows:

-- ~~A thirteenth invention is characterized in the tenth to twelfth inventions in that said~~ The video image correction circuit comprises an amplifier having a variable gain or an attenuator having a variable attenuation, so that the difference between the levels of the right and left-eye video signals is corrected by adjusting ~~said~~ the gain and attenuation depending upon the output level of ~~said~~ the video signal correction circuit.--

On page 7, line 12, please amend the paragraph as follows:

-- ~~A fourteenth invention is characterized in the thirteenth invention characterized in that said~~ The video signal correction circuit includes a level shift circuit which is capable of shifting the direct current level of an input signal, so that the difference between the levels of the right and left-eye video signals is corrected by adjusting the direct current level of ~~said~~ the input signal depending upon the direct current level of the output signal of ~~said~~ the video signal correction circuit.--

On page 7, line 20, please amend the paragraph as follows:

-- ~~A fifteenth invention is characterized in the thirteenth invention in that said~~ The video signal correction circuit corrects the difference between the right and left-eye video signals by correcting the pedestal levels of both video signals and/or video signal level.--

On page 7, line 25, please amend the paragraph as follows:

~~-- A sixteenth invention is characterized in the tenth to fifteenth inventions characterized in that said~~ The video signal correction circuit comprises a color correction circuit which is capable of adjusting the tonality of the video signal to correct the difference between the tonality of the right and left-eye video signals.--

On page 8, line 3, please amend the paragraph as follows:

~~-- A seventeenth invention is characterized in the first to sixteenth inventions in that said~~ The stereoscopic video signal processing circuitry operates to cause ~~said~~ the first switch to pass one of the right-eye video signal and left-eye video signals and operates to alternately switch ~~said~~ the second switch.--

On page 8, line 9, please amend the subtitle as follows:

--~~Operation and advantages~~ Summary of the Invention--

On page 8, line 9, please amend the paragraph as follows:

-- In the present invention, a stereoscopic video image display apparatus includes an image pick-up device for picking up the image of an object to be observed, a display device for displaying the video image which is picked up by ~~said~~ the pick-up device and a stereoscopic video signal processing circuitry for processing and converting the video signal output from ~~said~~ the image ~~pick^up~~ pick-up device into a signal which can be displayed on ~~said~~ the display device, ~~characterized in that said~~ wherein the image pick-up device comprises right and left-eye image pick-up elements which pick up right and left-eye video images. ~~Said~~ The stereoscopic video signal processing circuitry comprises a video signal correction circuit which alternately corrects the right and left-eye video signals and a first switch for switching the right and left-eye video signals to ~~said~~ the video signal correction circuit. ~~Since~~ Because correction of variations in image pick-up

elements and circuit components, temperature correction, color correction and automatic gain control (AGC), etc., can be conducted at the same timing and by the same amount for both right and left video images by combining two right and left signals into one signal and processing it by means of a single electronic circuit. Accordingly, a stereoscopic video image which causes less fatigue for viewers can be displayed without deteriorating the stereoscopic effect and causing ~~difference~~ differences between right and left video images and the flickering phenomenon. Manufacturing yield of two image pick-up elements can be enhanced and the number of similar circuit components, adjustment circuits and output circuits can be reduced to ~~one~~ by half, so that reduction in cost can be achieved. Dot clock, horizontal and vertical synchronization signals which are essential for processing of right and left separate video images can be made common, resulting in a stabilization of the signals and reduction in cost.--

On page 9, line 12, please amend the paragraph as follows:

-- The amount of data of the output stereoscopic video image is made equal to that of non-stereoscopic (plain) video signal by provision of a circuit which converts right and left-eye video signals into one signal by switching in response to each horizontal or vertical synchronization signal, recording and transmission of the video signal can be conducted similarly to that of the plain video signal. This simplifies the video image display apparatus, which is advantageous in respect to reliability and cost. Semiconductor devices (video LSIs) which are the same as those used for usual plain video image display can be used. The apparatus of the present invention is advantageous with respect to the development period of time and cost ~~since~~ because no development of new LSIs is required. The apparatus can be used as usual plain video camera if switching of right and left-eye video images is terminated. A video output can be obtained without any stereoscopic display.--

On page 9, line 27, please amend the paragraph as follows:

-- In accordance with the present invention, the number of circuit components, adjusting circuits and output circuits for two image pick-up elements can be reduced ~~to a~~ by half, so that its

cost can be reduced. Horizontal and vertical synchronization signals which are necessary for processing of right and left video signals can be made common, so that stabilization of the signals and reduction in cost can be achieved.--

On page 10, line 19, please amend the subtitle as follows:

-- ~~Best Mode for Carrying Out the Invention~~ DETAILED DESCRIPTION OF AN EXEMPLARY EMBODIMENT--

On page 11, line 16, please amend the paragraph as follows:

-- The video signal which is generated by the right and left-eye image pick-up elements (CCDs) 20 and 21, respectively, is processed by a stereoscopic video signal processing circuit 30 and is input to both right-eye display device (LCD) 90 and left-eye display device (LCD) 91. The stereoscopic video images which are displayed by right-eye display device (LCD) 90 and left-eye display device (LCD) 91 are observed by a viewer through right and left optical systems 12 and 13, respectively.--

On page 13, line 6, please amend the paragraph as follows:

-- An external interface (external I/F) 180 is connected to the microcomputer 100, so that information can be input/output to/from an external memory connected to the stereoscopic video image display apparatus therethrough. A communication interface (communication I/F) 190 is connected to the microcomputer 100 so that video image display apparatus can communicate with external data base (external DB) 120 via a network. If a data base having stored map information ~~is stored~~ is used as the external data base 210, the necessity to store map information in the stereoscopic video image display apparatus would be then omitted, so that the storage capacity of the storage medium can be reduced.--

On page 13, line 22, please amend the paragraph as follows:

-- Both right and left-eye video signals which are generated by the right and left-eye image pick-up elements (CCDs) 20 and 21, respectively, are input to the stereoscopic video signal processing circuit 30 which is one embodiment of the present invention.--

On page 15, line 19, please amend the paragraph as follows:

-- The output from the video signal output unit 43 is also nput to a right and left signal difference correction unit 44 as a feedback signal 45, where a difference between the levels of the right and left video signals is detected from the feedback signal 45. This detection of the difference is conducted by determining based upon a right and left reference signal sent from a synchronization signal generator 50 whether the input signal is right or left video signal. The detected difference between the right and left signals is input to the amplifier control unit 40 as a correction signal 46, so that it is used for adjusting the level of the right and left video signals.--

On page 19, line 25, please amend the paragraph as follows:

-- Specifically, the right and left-eye image pick-up elements 20 and 21 output video data on alternate scanning lines at intervals of 1/60 ~~seconds~~ second. In synchronization with this, the image pick-up element switch 35 switches an input signal to the video signal correction circuit 40 at intervals of 1/120 ~~seconds~~ second. The right and left signal switch 61 at the output stage switches the destination of the output at intervals of 1/120 ~~seconds~~ second to send the video signal to the right or left signal double speed conversion unit 62 and 63. The right and left signal double speed conversion unit 62 and 63, respectively, have video signal frame memories for temporarily storing right and left video signals which are sent at intervals of 1/60 ~~seconds~~ second. The right signal double speed conversion unit 62 reads out at the next interval of 1/60 ~~seconds~~ second the right-eye video signal which was stored in the video signal frame memory at the preceding interval

to combine two right-eye video signals for sending them to the right-eye video signal output unit 64. The combined right-eye video image is updated at a period of 1/60 ~~seconds~~ second and is displayed on the right-eye display device 90. Similarly, the left signal double speed conversion unit 63 reads out at the next interval of 1/60 the left-eye video signal which was stored in the video signal frame memory at the previous interval to combine two left-eye video signals for sending the combined left-eye video signal to the left-eye video signal output unit 64. The combined left-eye video image is updated at intervals of 1/60 ~~seconds~~ second and is displayed on the left-eye display device 90.--

On page 20, line 23, please amend the paragraph as follows:

-- The image pick-up element picks up the video image along every one scanning line at a predetermined timing (at intervals of 1/60 ~~seconds~~ second). The right signal double speed conversion unit 62 combines a right-eye video signal output from the right and left signal switch 61 with the right-eye video signal of previous frame along alternate scanning lines to output it for displaying it on the right-eye display element. The left signal double speed conversion unit 63 combines the left-eye video signal output from the right and left signal switch 61 with the left-eye video signal of the previous frame alternate scanning lines o output it to the left-eye display element 91. The right eye display element 90 updates and displays the combined right-eye video signal (information on all scanning lines) at said predetermined timing (at intervals of 1/60 ~~seconds~~ second). The left-eye display element 91 updates and displays the combined left-eye video signal (information on all scanning lines) at said predetermined timing (at intervals of 1/60 ~~seconds~~ second).--

On page 21, line 12, please amend the paragraph as follows:

-- The double speed clock signals which are input to the right and left signal double speed conversion units 62 and 64 are generated by the synchronization signal generating unit 66 and double speed clock generating unit 77. The stereoscopic video signal 47 which was processed

by the video signal correction circuit 40 is input to the synchronization signal generating unit 66, which extracts the timing of field, line or dot from the stereoscopic video signal 47. One of field synchronization timing, line timing and dot timing ~~is~~ to be extracted is determined by the synchronization switch 52. In case of vertical synchronization, the field synchronization timing is extracted as the vertical synchronization signal. In case of horizontal synchronization, line synchronization is extracted as the horizontal synchronization signal. In case of dot synchronization, the display timing of each display element (dot) is extracted as the dot synchronization signal.–